

Human_p53 MEEPQSDDPSVEPPLSQETFSDDLWKLLPENNV-----LSP--LPSQAMD
Xeno_p53 ME-PSSETGMDPPPLSQETFFEDLWSLLP-D-----PQQTVT
Squid_p53 MSQGT-----PNSQETFNLDWDSLEQVTANEYTOIHERGVGYEHEAEPDQTSLEISA
CPB_p53 MS-SQSD-----FLPPDVQNFLLAELEGD-----NMNDNLN
Trib_p53A MS-QQS-----QFSDIIPDVDPKFLFDH-----GLKDDV
Trib_p53B -----V
Helio_p53 -----
Dros_p53 MYISQP-----MSWHKESDSEDDSTEVDIK-----EDIPKTV
consensus m qs et l le 1

Human_p53 DLMLSDDDI--EQWFTEDPGPDEAPRMPEAAAPRV-----APAPAAPTPAAPAPASW
Xeno_p53 CRCDNLS-----EFPDYPLAADMT-----VLOEGLMGNAVPTVT--
Squid_p53 YRIAQDPYGRSESYDLLNPIINQIPAPMPIADTONNPLVNHCPYEDMPVSSTPYSPHDH
CPB_p53 FFKDEPT-----LNDLNSNILNG-----SIVANDDDSKMVHLIFPG-
Trib_p53A GRIMHEN-----NVHLVNDDE-----EEKYSNEANYTESIFPP-
Trib_p53B RQYKPPD-----FSHTFHPICISIFQLEDKFNINQSSYLSAPLIFPP-
Helio_p53 -----
Dros_p53 EVSGSELT-----TEPMFLQGLNSGN-----LMQFSQQSVLREMMQLQDI
consensus m p a t v p

Human_p53 PL--SSSVPSQKTYQGSYGERLGLH-SGTAKSVTCTYSPA LNKMF CQLAKKTCPVQLWVD
Xeno_p53 ---SCAVPSTDYAGKYGLQDFQ-NGTAKSVTCTYSPA LNKMF CQLAKKTCPELVVRVE
Squid_p53 VQSPQPSVPSNIIKYPGEYVFEEMSFAPQPSKETKSTTWYSEKLDKLYVRMAATTCPVRFKTA
CPB_p53 ---VQTSVPSNDEYDCPYEFEEVDVHP---TVAKNSWVYSTTLNKVYMTMGSPFPVDFFRVS
Trib_p53A ---DQPTNLGTEYYPGPENFSVLISP---NEQKSPWEYSEKLNKIFIGINVKFPVAFSVQ
Trib_p53B ---SEPLELCNTEYYPGPLNEEFVDP---NVLKNPWEYSPI LNKIYLDMMKHKFPFNFESVK
Helio_p53 -----HEMKCNFSVQENWD
Dros_p53 QIQANTLPKLENHNIGGYCFSMVLDE---PPKSLWMYSIP LNKIYLRMNKAFENVQVQFK
consensus q svpsq dy g y f l v k tw ys lnkmyv ma fpv f v

FIG. 1A

Human_p53 STPP-PGTRVRAMATIKQSQHMTETVRRCPHHERCSDD---SDGLAPPQHLLIRVEGNLR
 Xeno_p53 SPPP-RGSIIRATAVKKSEHVAEIVKRCPPHERSVEP---GEDAAPPSHLLIRVEGNLQ
 Squid_p53 RPPP-SGCQIRAMPPIIMKPEHVQEVVKRCPPNHATAKEH---NEKHPAPLHIVRCEHKL-
 CPB_p53 HRPP-NPLIIRSTPVISAPQFAQECVYRCENHEFSHKESS-DGDLKEHTRPHIIRCANQYA
 Trib_p53A NRPQNLP LIRATPVISQTHFQDLVHRCVGRHRPQDQS-NKGVAPHIFQHIIRCTINDNA
 Trib_p53B KADERRLVIRVMPMEEDRYVQELVHRCICHEQLTDPF-T-NHNVSEMVAQHIIIRCDNNNA
 Helio_p53 YQKA-PHMEVRSVVSDETQAEKRVERCVQHFHESSTSGIQTEIAKNVLHSSREIGTQG
 Dros_p53 SKMPIQPLNIRVFLCESND--VSAPVVVRCQNHLSVEPLT---ANNAKMRSETERSENPNSS
 consensus pp lfvRatpvys hvqevv RClnHe d s d i hiircennna

Human_p53 VEYLDDDRNT---FRHSVVVPYEP---PEVGSDDCTTIHYNVMCNSSSCMG-GMNRRPILTI
 Xeno_p53 AYYMEDVNS---GRHSVCVPYEG---PQVGTCTTVLYNVMCNSSSCMG-GMNRRPILTI
 Squid_p53 AKYHEDKYS---GRQSVETIPHEM---PQAGSEWVVNLYQFMCLGSCVG-GENRRPIQLV
 CPB_p53 AVLGDKSKN---ERLSVVIPIFGI---PQGTESVREITEFVCKNSCPSPGMNRRAVEHI
 Trib_p53A LYFGDKNTG---TRLNIVTPLAH---PQVGEDVVKEFTEQFVCKNSCPL-GMNRRPIDVV
 Trib_p53B QYFGDKNAG---KRLS-----
 Helio_p53 VYCGKVDN---ADSWYSVLVEF---MRTSSESCSHAYQFSCKNSCAT-GENRRRAIATI
 Dros_p53 VYCGNAQKGKISERFSVVVPLNMSRSVTRSCLTRQTLATKFKVCONSCIG---RKETSLLV
 consensus vyygdk r svvvp e pq gse t ynfmc nscmg gmnrrpi li

FIG._1B

Human_p53 ITLEDSSGNTLGRNSFEVRVACPCGRDRRTTEE-NLRKKG---EPHHELPPGSTKRALP
 Xeno_p53 ITLETPQGLLGRRCFVRVACPCGRDRRTTED-NYTKK---RGLKPSG--KRELA
 Squid_p53 FTLEK-DNQVLGRRAVEVRICACPCGRDKADEKASLVSK---PPSPKKNFGPQRSLV
 CPB_p53 FTLEDNQGTIYGRKTENVRICSCPKRDKKEKDKDNTANT---NLPHG-KKRKME
 Trib_p53A FTLEDNKGEVFGRRLVGVVRVCSCPKRDKKDEK-DMESA---VPPRRKKRKLG
 Trib_p53B -----
 Helio_p53 FTLEDAMGNTHGRQKVGAR-----
 Dros_p53 FCLEKACGDIYQGHVTHVKICTCPKRDRIQDERQLNSKKRKSVPEAAEEDPSKVRRCTA
 consensus ftled g ligr v vivc cp rdr eek k p g kr l

Human_p53 NNTSSSP-QPKK---KPLDGEYFTLQIRGRERFEMFRENDALELKDAQAG-----
 Xeno_p53 HPPSSEPLPKKRLVVDDEEIEFTIRIKGRSRYEMIKKINDALELQESLDQO-----
 Squid_p53 LTNDITKITPKK---RKIDDECFTEKVRGRENYELCKKIDIMELAARIPEAERLLYKQE
 CPB_p53 KPSKKPMQTQAE---NDTKETLTIPLVGRHNEQNVLYKYCHDIMAGEIILRN-----
 Trib_p53A NDERRVVPQGSS---DNKIFALNTHIPGKKNYLOALKMCDMLANEIILKKQ-----
 Trib_p53B -----
 Helio_p53 -----
 Dros_p53 IKTEDTESNDSRDCDDSAAEWNVSRTPDGDYRLAITCPNKEWTLQSIEMIK-----
 consensus k e t l i gr f m kl e l d l

Human_p53 -KEPGG---SRAHSSHLKSKKGQ-----STSRHKKKLMFKTEGPDSD-----
 Xeno_p53 -KVTIK---CRKCRDEIKPKKG-----KKTLLVKDEQPDSE-----
 Squid_p53 RQAPIGRLTSLPSSSSNGSQDGSRSSTAFSTDSSQVNSSQNNTQMVGQVPHEETPVT
 CPB_p53 ---IG---NGTEGPYKIALN-----KINTLIRESE-----
 Trib_p53A ---EQG---GD-DSADKNCYN-----EITVLLNGTAAFD-----
 Trib_p53B -----
 Helio_p53 -----
 Dros_p53 --EAAAEEVLRNPQENLRHRAN-----KLLEKKRAYELP-----
 consensus g k lmv d

FIG._1C

```
Human_p53  -----  
Xeno_p53  -----  
Squid_p53 KCEPTENTIAQWLTKLGLQAYIDNFQQKGLHNMFQLDEFTLEDLQSMRIGTGHRNKIWKS  
CPB_p53  -----  
Trib_p53A -----  
Trib_p53B -----  
Helio_p53 -----  
Dros_p53  -----  
consensus -----
```

```
Human_p53  -----  
Xeno_p53  -----  
Squid_p53 LLDYRRLLSSGTESQALQHAASNASTLSVGSQNSYCPGFYEVTTRYKHTISYL  
CPB_p53  -----  
Trib_p53A -----  
Trib_p53B -----  
Helio_p53 -----  
Dros_p53  -----  
consensus -----
```

FIG. 1D